

REMARKS

Claims 1-6 and 10-24 were pending. Claims 1-6 and 15-21 have been withdrawn. Thus, claims 10-14 and 22-24 are now pending.

A clean version of the pending claims is listed under "Listing of the Claims" beginning at page 2 of this paper.

Rejections Under 35 U.S.C. § 102

Claims 10-14 and 22-24 are rejected under 35 U.S.C. § 102(e), as allegedly being anticipated by U.S. Patent No. 6,090,880 (Zimmer et al.) as evidenced by U.S. Patent No. 4,590,039 (Cheng). The Examiner alleges that Zimmer discloses a modified carbon black characterized by being coated at least in part by a layer of aluminum hydroxide, having a specific BET surface area of between 20 and 400m²/g. The Examiner also alleges that Zimmer discloses that the carbon black has an amount of surface aluminum from between 0.5 and 10% by mass, which allegedly encompasses the range cited in claims 13 and 14. The Examiner further alleges that Zimmer discloses a process for reinforcing a diene rubber composition which can be used for the manufacture of tires comprising incorporating the above carbon black into the composition before introducing a vulcanization system. The Examiner alleges that Cheng discloses N110 carbon black having an average particle size ranging from 20-30 nm. The Examiner acknowledges that Zimmer does not disclose the ultrasound disagglomeration rate of the carbon black, but has taken the position that the carbon black of Zimmer would inherently have an ultrasound disagglomeration rate within the presently claimed range. Applicants respectfully disagree.

For a claim to be anticipated by a reference, "there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Moreover, a claim is anticipated and fails to meet the requirement of §102 only when a single prior art reference discloses each and every element of the claimed invention. *Lewmar Marine, Inc. v. Barient*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987), emphasis added. To rely upon the theory of inherency, the Examiner must "must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." M.P.E.P. § 2112. Such evidence can be a secondary reference. M.P.E.P. § 2131.02. However, the secondary reference evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." M.P.E.P. § 2131.02-III.

The Examiner has failed to provide any evidence to demonstrate that the carbon black disclosed by Zimmer would inherently have an ultrasound disagglomeration rate greater than $1 \times 10^{-3} \mu\text{m}^{-1}/\text{s}$, which is allegedly comparable to the ultrasound disagglomeration rate of the modified carbon black of the present invention. The Examiner has not provided any basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic of ultrasound disagglomeration rate of greater than $1 \times 10^{-3} \mu\text{m}^{-1}/\text{s}$ necessarily flows from the teachings of the applied prior art. The Examiner has also failed to identify a secondary reference that provides support that the carbon black disclosed by Zimmer to exhibits an ultrasound disagglomeration rate greater than $1 \times 10^{-3} \mu\text{m}^{-1}/\text{s}$.

Furthermore, Zimmer is directed primarily to silanol-modified or siloxane-modified carbon black, not to an aluminum oxide and/or hydroxide coated carbon black. Zimmer focuses in on the interaction between the silanol groups on the surface of the modified carbon black (comprising a tin coupled or capped elastomer and the alkoxysilane) which, in fact, confers enhanced physical properties to a rubber composition (Zimmer at col. 5, lines 46-58). Zimmer states that it is "especially the ... silane-modified carbon black, together with the silica coupler, to the rubber composition results in not only improved processing characteristics for the carbon black reinforced elastomer composition..." (Zimmer at col. 6, lines 5-9). These desired characteristics including reduced viscosity, improved abrasion resistance and rebound values, tan delta and loss compliance (Zimmer at col. 6, lines 10-13). Zimmer also points to the moieties, i.e. silanol, siloxanes, acids, ketones, and/or aldehydes, on the silanol-modified carbon black which react with the silane moiety of the silica coupler as the rationale for the desired characteristics of the rubber composition produced using the modified carbon black of the present invention. (Zimmer at col. 6, lines 20-28). In other words, Zimmer stresses the essential aspect of the invention provided by the silane modification, not the aluminum modification of carbon black and thus teaches away from using non-siliceous moieties to modify the carbon black.

As such, applicants respectfully request withdrawal of the rejection of claims 10-14 and 22-24 under 35 U.S.C. § 102(e).

CONCLUSION

In view of the foregoing remarks, applicants respectfully request withdrawal of the rejections and allowance of the pending claims. Applicants do not believe that any fee, other than an extension of time fee, is required in connection with this submission. However, should any other fee be required, the Commissioner is hereby authorized to charge any such fee to Deposit Account 02-4377. A duplicate copies of this paper is enclosed.

Respectfully submitted,

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Dated: July 24, 2003

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